

Appendix A:

Great Lakes Binational Toxics Strategy Time Line

The following section presents an overview of Great Lakes Binational Toxics Strategy progress and includes not only activities undertaken by the workgroups and the governments since the GLBTS was signed in 1997, but also various activities related its goals and objectives.



GREAT LAKES BINATIONAL TOXICS STRATEGY (GLBTS) PROGRESS OVERVIEW 1997 - 2001

YEAR				
1998 and earlier		1999	2000	2001 and ongoing
General GLBTS Activities				
GLBTS Development, the Integration Workgroup, and the Stakeholders Forum	<ul style="list-style-type: none"> - 4/7/97 U.S. and Canada sign the <i>GLBTS: Canada-United States Strategy for the Virtual Elimination of Persistent Toxic Substances in the Great Lakes</i> - 6/26/97 Stakeholders invited to workshop to develop a draft GLBTS Implementation Plan - 12/97 GLBTS Implementation Plan distributed and substance-specific participation solicited - 12/97 GLBTS web page is developed - 3/23/98 Kick-off implementation meeting in Chicago to form seven substance-specific workgroups - 6/19/98 The first GLBTS Integration Workgroup meeting is convened in Romulus Michigan - 6/98 GLBTS web site is redesigned; PCBs and Hg workgroup pages added 	<ul style="list-style-type: none"> - 1/26/99 GLBTS Integration Workgroup meets in Windsor, Ontario - 4/27/99 GLBTS Stakeholder Forum is held in Toronto, Ontario - 4/28/99 GLBTS Integration Workgroup meets in Toronto, Ontario - 8/24/99 GLBTS Integration Workgroup meets in Detroit, Michigan - 9/23-26/99 EPA, EC and invited speakers give GLBTS Session presentation at the IJC Great Lakes Water Quality Forum in Milwaukee, WI - 9/24/99 A preliminary draft GLBTS Progress Report issued at IJC meeting in Milwaukee, WI - 10/99 GLBTS main and mercury workgroup web pages are redesigned - 10/7/99 A Canadian GLBTS <i>Report on Level II Substances</i> is posted on the GLBTS web page - 11/18/99 GLBTS Stakeholder Forum is held in Chicago, Illinois - 11/19/99 GLBTS Integration Workgroup meets in Chicago, Illinois 	<ul style="list-style-type: none"> - 1/28/00 Municipal Solid Waste and Incineration Workgroup planning conference call - 2/11/00 Municipal Solid Waste and Incineration Workgroup planning conference call - 2/15/00 GLBTS Integration Workgroup meets in Windsor, Ontario - 5/15/00 Protecting the Great Lakes, Sources of PBT Reductions Workshop on Municipal Solid Waste Management is held in Toronto, Ontario - 5/16/00 GLBTS Stakeholder Forum is held, with the theme "Meeting the Challenge" 	<ul style="list-style-type: none"> - 2/20/01 GLBTS Integration Workgroup meets in Windsor, Ontario - 2/21/01 GLBTS 2000 Progress Report is posted to web site - 5/17/01 GLBTS Stakeholder Forum is held in Toronto, Ontario - 5/18/01 GLBTS Integration Workgroup meets in Toronto, Ontario - 06/18/01 GLBTS Sector Subgroup begins a series of conference calls to select a short list of sectors for a pilot effort - 8/28/01 GLBTS Integration Workgroup meets in Chicago, Illinois - 9/19/01 GLBTS Sector Subgroup begins information-gathering phase focusing on the short list of sectors - 11/14/01 GLBTS Stakeholder Forum is held in Chicago, Illinois, with the theme "Implementation – Partners in Progress" - 11/15/01 GLBTS Integration Workgroup meets in Chicago, Illinois



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
GLBTS Development, the Integration Workgroup, and the Stakeholders Forum	<ul style="list-style-type: none"> - 7/98 GLBTS web site is redesigned; integration, dioxins, pesticides, HCB/B(a)P, alkyl-lead, and OCS workgroup pages added - 10/21-23/98 GLBTS display and presentation (including GLBTS handouts - a brochure, website cards, GLBTS progress timeline and activity sheets) at the SOLEC Conference in Buffalo, NY - 11/16/98 The first GLBTS Stakeholder Forum is convened in Chicago, IL - 11/16/98 The first GLBTS progress report is distributed 	<ul style="list-style-type: none"> - EC and EPA develop draft communications strategy, present it to Integration Workgroup, and revise strategy based on stakeholder comments - 12/99 Preliminary planning initiated for a PCP Workshop (to include the GLBTS pesticides, HCB and dioxins/furans workgroups) - 12/3/99 A U.S. <i>GLBTS Report on Level II Substances</i> is posted on the GLBTS web page - 12/15/99 Draft (Full) 1999 GLBTS Progress Report issued - 1999 (various dates) Development of a Canadian GLBTS communications plan 	<ul style="list-style-type: none"> - 9/22/00 GLBTS Integration Workgroup meets in Chicago, Illinois - 2000 (various dates) GLBTS communications plan is finalized by EC; "key messages" finalized; various communications products in development (brochure, business cards, display unit, letterhead, web site improvements, success stories) 	<ul style="list-style-type: none"> - 11/16/01 GLBTS/LaMP Workshop in Chicago, Illinois, with the theme of "Program Synergies – Partners in Progress Exploring how we can mutually support the pollutant reduction needs and efforts of each program synergistically"

YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Substance-Specific Activities				
Mercury (Hg)				
GLBTS Workgroup Activities	<ul style="list-style-type: none"> - 3/23/98 WG is formed at the first implementation meeting - 5/5/98 WG conference call is held - 11/16/98 WG meeting at the GLBTS Stakeholder Forum in Chicago, IL - 11/17/98 GLBTS workshop on Potential Mercury Reductions at Electric Utilities is held in Chicago 	<ul style="list-style-type: none"> - 4/99 Workshop on community initiatives for reducing Hg - 1/99 GLBTS web postings include: <i>Wisconsin Mercury Source Book</i> on community Hg reduction plans, findings of the <i>Mercury Reduction at Electric Utilities</i> workshop, and <i>Mercury Success Stories</i> - 2/99 Information and FAQs on mercury fever thermometers posted on the GLBTS web page - 3/99 GLBTS web postings include: The WDNR guide, <i>Mercury in your Community and Environment</i>, and a manual for hospitals, <i>Reducing Mercury Use in Health Care</i> - 4/27/99 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 11/18/99 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois 	<ul style="list-style-type: none"> - 5/16/00 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 6/00 GLBTS web page on Mercury Thermometers and Frequently Asked Questions is updated - 8/00 Memo on progress in reducing mercury use posted on the GLBTS web page - 10/17/00 Expansion of mercury web page links - 11/18/00 WG meeting at the GLBTS Stakeholder Forum in Toronto 	<ul style="list-style-type: none"> - 5/17/01 WG meeting at the GLBTS Stakeholder Forum in Toronto - 11/14/01 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois
GLBTS Reports	<ul style="list-style-type: none"> - 8/24/98 Background Information on Mercury Sources and Regulations is posted on the GLBTS web page - 9/10/98 Options Paper <i>Developing a Virtual Elimination Strategy for Mercury</i> is posted on the GLBTS web page 	<ul style="list-style-type: none"> - 11/99 Draft GLBTS Step 1&2 <i>Sources and Regulations</i> report for Hg is posted on the GLBTS web page 	<ul style="list-style-type: none"> - A final draft GLBTS <i>Reduction Options</i> (Step 3) report for mercury is prepared (9/1/00) and posted (9/29/00) on the GLBTS web page 	



		YEAR			
1998 and earlier		1999	2000	2001 and ongoing	
Other Related Activities	<ul style="list-style-type: none"> - Chlorine Institute voluntary Hg commitment to reduce Hg use by 50% by 2005 - 12/97 <i>Mercury Report to Congress</i> is released by EPA - 5/8/98 Chlorine Institute releases progress report on voluntary Hg commitment - 6/25/98 EPA and AHA sign a MOU on reducing medical wastes - 9/15/98 Three northwest Indiana steel mills commit to developing mercury inventories and reduction plans - 10/98 IDEM household mercury collection efforts - Dow Chemical Company commits to Hg reductions 	<ul style="list-style-type: none"> - PBT Strategy grant to the Northeast Waste Management Officials' Association to encourage state Hg reduction efforts - 8/99 As part of 1998 agreement, Hg inventories at Indiana steel mills are completed - 10/99 Hg waste collection component of the Cook County (Illinois) Clean Sweep pilot begins 	<ul style="list-style-type: none"> - Chlorine Institute reports 42% reduction, production-adjusted, in mercury use - USEPA, states agencies, and academic researchers conduct meetings with chlor-alkali industry representatives to coordinate mercury reduction projects - Olin Corp. cooperates with USEPA, State, and academic researchers on mercury monitoring project at chlor-alkali plant - Indiana steel mills complete mercury reduction plans; extend invitation to suppliers to commit to developing mercury inventories and reduction plans - Auto Alliance commits to eliminate mercury switches in auto convenience lighting; New York DEC and Michigan DEQ implement mercury removal programs at auto scrap yards - Hospitals for a Healthy Environment produces a Mercury Virtual Elimination Plan for hospitals under the AHA-EPA MOU. State and local governments provide technical assistance to hospitals, and the National Wildlife Federation (NWF) continues its outreach and education efforts, signing up nearly 600 medical facilities to NWF's "Mercury Free Medicine Pledge." - Wisconsin DNR and Department of Agriculture conduct a dairy mercury manometer replacement program; approximately 375 mercury manometers are recycled. 	<ul style="list-style-type: none"> - 651 hospitals join the National Wildlife Federation's Mercury-Free Hospitals campaign - Ispat-Inland Indiana Harbor Works, Bethlehem Steel Burns Harbor Division, US Steel Gary Works, the Delta Institute, and Lake Michigan Forum create a Guide to Mercury Reduction in Industrial and Commercial Settings - Merc Switch-out Pilot Program launched by Pollution Probe, Ontario Power Generation, Ontario Ministry of the Environment, and Environment Canada to collect mercury switches from old vehicles - 2/21/01 A workshop entitled "Extended Producer Responsibility and the Automotive Industry" is sponsored by the Canadian Autoworkers Union's Windsor Regional Environment Council and Great Lakes United 	

YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Other Related Activities	<ul style="list-style-type: none"> - Six Ontario hospitals sign MOU to voluntarily reduce Hg - Pollution Probe investigates Hg reduction options for electrical products sector in Ontario - Automotive Pollution Prevention Project efforts to phase out Hg - EPA grant to Ecology Center of Ann Arbor: promoting mercury P2 in the health care industry - WLSSD begins multimedia zero discharge pilot / focus on Hg - Michigan Mercury Pollution Prevention Task Force - 11/16/98 A draft PBT National Action Plan for Mercury is released by EPA 	<ul style="list-style-type: none"> - Total mercury used in lamps declines from an estimated 17 tons in 1994 to an estimated 13 tons in 1999, even though significantly more mercury containing lamps are sold in 1999 than in 1994. 	<ul style="list-style-type: none"> - University of Wisconsin extension creates a website and list server to share information about mercury in schools. - The Thermostat Recycling Corporation collects over 500 lbs of mercury from over 57,000 thermostats collected and processed from January 1, 1998 to June 30, 2000. The program is expanded to the Northeast and will gradually be expanded to include the entire U.S. - The Great Lakes Dental Mercury Reduction Project funded by the Great Lakes Protection Fund produces a brochure template: Amalgam Recycling and Other Best Management Practices. Great Lakes Dental Associations reprint and distribute this document to their memberships. The University of Illinois-Chicago dental school and the Naval Dental Research Institute conduct research on controlling mercury in dental wastewater and help to educate dentists about best management practices. - Coalitions including Health Care Without Harm and the National Wildlife Federation successfully encourage several national retailers to stop the sale of mercury-containing thermometers to the public. Duluth, Minnesota, Ann Arbor Michigan, unincorporated areas of Dane County, Wisconsin, and several Dane Country municipalities, ban the sale of mercury thermometers. 	



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Polychlorinated Biphenyls (PCBs)				
GLBTS Workgroup Activities	<ul style="list-style-type: none"> - 3/23/98 WG is formed at the first implementation meeting - 11/16/98 WG meeting at the GLBTS Stakeholder Forum in Chicago, IL - 6/15/98 The workgroup requests that the IG develop a strategy on sediments 	<ul style="list-style-type: none"> - 4/27/99 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 11/18/99 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois - Workgroup solicits and gains commitment of 3 U.S. auto manufacturers to reduce PCBs - Workgroup solicits commitment of steel producers to reduce PCBs 	<ul style="list-style-type: none"> - 5/16/00 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - Workgroup solicits and gains commitment of 2 Canadian auto manufacturers, 4 Canadian steel producers, and over 30 municipal electrical utilities in Ontario to reduce PCBs - Workgroup leaders and Council of Great Lakes Industries (CGLI) finalize outreach letters used to seek PCB reduction commitments from trade associations. CGLI identifies specific trade associations to begin outreach. EC mails letters to trade initial associations. USEPA mailings to follow. - Workgroup begins to compile case study reports on reasons why companies remove their PCBs - Workgroup begins to collect photographs of PCB-containing electrical equipment to assist potential owners with identification of equipment which may contain PCBs - Workgroup drafts a fact sheet on PCB containing submersible well pumps to be used for outreach to potential users of wells and servicers of well pumps. 	<ul style="list-style-type: none"> - WG continues to mail letters to companies and trade associations seeking commitments to phase out PCBs - WG prepares case studies submitted by Bethlehem Steel Corporation's Burns Harbor Division and ComEd Energy Delivery, a unit of Chicago-based Exelon Corporation, for posting on the GLBTS web page - 5/01 WG update is posted on the GLBTS web page - 5/17/01 WG meeting at the GLBTS Stakeholder Forum in Toronto - 7/01 USEPA compiles and analyzes data for 1995-1999 submitted by U.S. PCB disposers - 8/29/01 WG posts photographs of electrical equipment which may contain PCBs (transformers, and capacitors) to GLBTS web page to help increase awareness of the types of equipment that may contain PCBs - 8/30/01 PCBs in Submersible Well Pumps fact sheet posted to GLBTS web page - 11/14/01 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois

YEAR				
1998 and earlier		1999	2000	2001 and ongoing
GLBTS Reports	<ul style="list-style-type: none"> - 11/10/98 Options Paper <i>Virtual Elimination of PCBs</i> is posted on GLBTS web page - 11/12/98 Background Information on PCB Sources and Regulations is posted on the GLBTS web page 	<ul style="list-style-type: none"> - 11/99 Draft GLBTS Step 1&2 <i>Sources and Regulations</i> report for PCBs is posted on the GLBTS web page 	<ul style="list-style-type: none"> - Final draft GLBTS Step 3 <i>Reduction Options</i> report for PCBs is prepared (7/14/00) and posted (9/29/00) on the GLBTS web page 	
Other Related Activities	<ul style="list-style-type: none"> - Automotive Pollution Prevention Project efforts to phase out PCBs - Small Quantity PCB Owner Outreach Program started in Ontario - Municipal Electric Association Outreach Program in Ontario - Ontario Mining Association Outreach program - NORA and Region 5 begin clean sweep program for used PCB oil and wastewater - Region 5 PCB Phasedown pilot project continues - EPA finalizes PCB regulations which include a requirement for U.S. owners to register their PCB transformers 	<ul style="list-style-type: none"> - EC and Ontario government hold two workshops on PCB management in the Toronto area - 10/99 PCB waste collection component of the Cook County (Illinois) Clean Sweep pilot begins - U.S. PCB transformer registration database is updated - Canadian Steel Producer Association Outreach Program - Association of Municipal Recycling Coordinators Outreach Program in Ontario 	<ul style="list-style-type: none"> - Region 5 PCB Phasedown Program pilot project continues and pilot PCB phasedown enforcement policy is finalized - A PBT workgroup continues to work on a National Action Plan for PCBs - 2/00 EC mails survey to approximately 500 registered owners of in-use PCB equipment in Ontario, requesting updated information - PCB/Hg Cook County Clean Sweep pilot concludes - 11/00 Canada mails letter to over 2000 registered PCB waste storage owners/managers in Ontario for a recent update of their stored PCB inventory which will be used to modify federal databases for better tracking and monitoring 	<ul style="list-style-type: none"> - 5/2/01 Final Reclassification of PCB and PCB-contaminated Electrical Equipment rule becomes effective - USEPA finalizes a rule on Return of PCB Waste from U.S. Territories Outside the Customs Territory of the U.S. The rule clarifies that PCB waste in U.S. territories and possessions outside the customs territory of the U.S. may be moved to the customs territory of the U.S. for proper disposal at approved facilities. - EC updates National PCB In-Service Inventory from survey of registered owners and prepares fact sheet - EC's regulatory amendment process proposes the strengthening of federal regulations regarding PCB management



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Dioxins/Furans				
GLBTS Workgroup Activities	<ul style="list-style-type: none"> - 3/23/98 WG is formed at the first implementation meeting - 11/16/98 WG meeting at the GLBTS Stakeholder Forum in Chicago, IL 	<ul style="list-style-type: none"> - 4/27/99 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 6/1/99 WG Conference call: sources discussions - 7/7/99 WG Conference call: sources discussions - 9/7/99 WG Conference call: developing a decision tree source prioritization process - 10/5/99 WG Conference call: finishing development of a decision tree process - 11/18/99 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois - 12/7/99 WG Conference call: application of the decision tree process 	<ul style="list-style-type: none"> - 1/11/00 WG Conference call: continuing the decision tree process - 2/1/00 WG Conference call; decision made to initiate a Burn Barrel Sub Group - 3/7/00 WG Conference call: continuing the decision tree process - 4/4/00 WG Conference call: continuing the decision tree process - 4/4/00 Burn Barrel Sub Group has inaugural teleconference - 4/25/00 Burn Barrel Sub Group teleconference: strategy matrix discussed - 5/2/00 WG Conference call: continuing the decision tree process - 5/16/00 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario <ul style="list-style-type: none"> > the decision tree process is completed - 7/11/00 WG Conference call: developing reduction projects for high priority sectors - 8/1/00 Burn Barrel Sub Group teleconference: discussion Terms of Reference; link to Lake Superior LaMP - 9/12/00 WG Conference call: developing reduction projects - 9/12/00 Burn Barrel Sub Group teleconference: discussion of Chisago County "Buyback" program; discussion of survey questions regarding state/local regulatory frameworks, and garbage quantity/quality questions. - 11/14/00 Burn Barrel Sub Group teleconference: outline of a strategy document prepared. 	<ul style="list-style-type: none"> - The WG continues to collect information regarding emissions from steel manufacturing, landfill fires, and incinerator ash management - 1/16/01 Burn Barrel Sub Group teleconference: Burn Barrel Strategy - 2/6/01 WG Conference call - 2/13/01 Burn Barrel Sub Group teleconference: Review presentation for Integration Group - 3/13/01 Burn Barrel Sub Group teleconference: Status of efforts to prepare regulatory profile - 4/10/01 Burn Barrel Sub Group teleconference: Proposal for USEPA funding of subgroup activities - 5/8/01 Burn Barrel Sub Group teleconference: Review Strategy/ Implementation Plan document - 5/17/01 WG meeting at the GLBTS Stakeholder Forum in Toronto: WG approves Burn Barrel Strategy/ Implementation Plan document; Canadian and US presentations on wood preservation - 6/12/01 Burn Barrel Sub Group teleconference: Implementation activities for Summer/Fall - 6/22/01 Burn Barrel Sub Group receives \$55k of USEPA PBT funding - 10/9/01 Burn Barrel Sub Group teleconference: Regional Lake Superior campaign - 11/6/01 Burn Barrel Sub Group teleconference: Sharing information

		YEAR			
		1998 and earlier	1999	2000	2001 and ongoing
GLBTS Workgroup Activities				- 11/00 Discussion papers on Landfill Fire and Incinerator Ash Management prepared for workgroup review.	- 11/14/01 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois
GLBTS Reports				- 5/26/00 GLBTS draft Step 1&2 <i>Sources and Regulations</i> report is prepared - 8/18/00 An addendum to the GLBTS Draft <i>Sources and Regulations</i> report is prepared to address the newly released U.S. Dioxin Reassessment and the draft report is posted (9/29/00) on the GLBTS web - Final GLBTS Step 3 <i>Reduction Options</i> report is prepared (9/27/00) and the report is posted (9/29/00) on the GLBTS web page	
Other Related Activities	- WLSSD begins multimedia zero discharge pilot / focus on dioxins	- Two Ontario utilities eliminate use of PCP in treated poles	- 1/00 WLSSD report on open barrel burning practices is released - 2/00 Wood stove changeover pilot programs in Traverse City, MI, and Green Bay, WI - 6/12/00 draft chapters of the <i>U.S. Dioxin Reassessment</i> for external scientific review are released - 9/28/00 Three draft chapters of the <i>U.S. Dioxin Reassessment</i> for SAB review are released	- PCP re-registration review proceeding as joint Canada/U.S. endeavor - February 2001, Release of “National Inventory of Releases of Dioxins and Furans, Updated Edition”, by EC - May 2001, Release of report “Characterization of Organic Compounds from Selected Residential Wood Stoves and Fuels” by EC	



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Pesticides				
GLBTS Workgroup Activities and Reports	<ul style="list-style-type: none"> - 3/23/98 WG is formed at the first implementation meeting - 11/16/98 WG meeting at the GLBTS Stakeholder Forum in Chicago, IL - 12/31/98 Draft GLBTS Challenge report for the Level 1 pesticides is posted on the GLBTS web page 	<ul style="list-style-type: none"> - 4/27/99 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 11/18/99 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois 	<ul style="list-style-type: none"> - 5/16/00 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - GLBTS U.S. Pesticides Challenge Report: <i>The Level 1 Pesticides in the Binational Strategy</i> is finalized (3/1/00) and posted (9/29/00) - 05/00 EC announces that with the cooperation of PMRA they have reevaluated their position on Level I pesticides and that based on all available information have met the Level I challenge. 	<ul style="list-style-type: none"> - WG reviews pollution prevention opportunities for Level II pesticides (endrin, heptachlor, lindane and HCH, tributyl tin, and pentachlorophenol) and begins preparing report
Other Related Activities	<ul style="list-style-type: none"> - 10/96 EC prepares report: <i>Canada-Ontario Agreement Objective 2.1: Priority Pesticides Confirmation of No Production, Use, or Import in the Commercial Sector in Ontario</i> 	<ul style="list-style-type: none"> - EPA funding to four existing Clean Sweep programs for pilot data collection efforts for Level 1 pesticides 	<ul style="list-style-type: none"> - Draft National Action Plan for Level 1 Pesticides under the U.S. National PBT Initiative completed and released for review and public comment - PBT Pesticides Workgroup reviewing toxaphene remediation in Brunswick, GA - Level 1PBT pesticides (except mirex) are regularly collected by ongoing Clean Sweep programs - Phase out of the Level 2 Pesticides lindane and tributyl tin compounds are the subject of bi-national negotiations through Pesticide Regulatory Agencies in the U.S. and Canada 	<ul style="list-style-type: none"> - PCP re-registration review proceeding as joint Canada/U.S. endeavor - Waste pesticide collections (Clean Sweeps) continue - 10/5/01 Members of the world's primary maritime organization, the International Maritime Organization, adopt the International Convention on the Control of Harmful Anti-fouling Systems on Ships. The agreement calls for a global prohibition on the application of organotin compounds by January 1, 2003, and a complete prohibition by January 1, 2008.

YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Hexachlorobenzene (HCB) / Benzo(a)pyrene (B(a)P)				
GLBTS Workgroup Activities and Reports	<ul style="list-style-type: none"> - 3/23/98 WG is formed at the first implementation meeting - 9/98 & 10/98 Discussions are held with the pesticide manufacturing, chlorinated solvent manufacturing, and petroleum refinery industries regarding their emission levels, and to determine any success stories, pollution prevention opportunities, and other planned or possible emission reduction actions - 11/16/98 WG meeting at the GLBTS Stakeholder Forum in Chicago, IL 	<ul style="list-style-type: none"> - 4/27/99 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 11/18/99 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois - 11/99 Draft GLBTS Step 1&2 <i>Sources and Regulations</i> Reports for B(a)P and HCB are posted on the GLBTS web page 	<ul style="list-style-type: none"> - 5/16/00 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - Discussions held with the U.S. Scrap Tire Management Council and scrap tire managers in the Midwest - 6/15/00 Final drafts GLBTS Step 3 <i>Reduction Options</i> reports for B(a)P and HCB are prepared - 7/12/00 Final drafts GLBTS Step 3 <i>Reduction Options</i> reports for B(a)P and HCB are posted on the GLBTS web page - 9/21/00 WG conference call is held - 10/00 draft Canadian Steps 1&2 reports for HCB and BaP(PAHs) circulated to stakeholders and workgroup members for comments 	<ul style="list-style-type: none"> - 5/17/01 WG meeting at the GLBTS Stakeholder Forum in Toronto - 11/14/01 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois - Canada implements Strategic Options Processes with steel mills and wood preservers - Algoma Steel signs an Environmental Management Agreement with EC and OME to address environmental priorities - A Wood-stove Changeout Program is held in Georgian Bay, Ontario, in conjunction with the Hearth Products Association of Canada
Other Related Activities	<ul style="list-style-type: none"> - Dow Chemical Company commits to HCB reductions 	<ul style="list-style-type: none"> - Two Ontario utilities eliminate use of PCP in treated poles - U.S. chlorothalonil manufacturer reduces HCB content through process improvements - 10/99 Draft Report, <i>Global HCB Emissions</i> (Robert Bailey, 1999), is distributed to the WG - 01/99 wood stove changeover pilot program for Eastern Ontario 	<ul style="list-style-type: none"> - 1/00 WLSSD report on open barrel burning practices is released - 2/00 Wood stove changeover pilot programs in Traverse City, MI, and Green Bay, WI - PBT workgroups continue to work on draft National Action Plans for HCB and B(a)P - 5/5/00 Robert Bailey prepares report, <i>HCB Concentration Trends in the Great Lakes</i>, for the WG 	<ul style="list-style-type: none"> - 2/01-4/01 The Hearth Products Association expands the Great Lakes Great Stove Changeout to 12 states - 6/01 USEPA issues an administrative order requiring Magnesium Corporation of America (Rowley, UT) to ensure proper handling, containment, and disposal of anode dust found to contain high levels of HCB (>12,000 ppm), as well as dioxins, PCBs, and chromium - PCP re-registration review proceeding as joint Canada/U.S. endeavor



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Alkyl-lead				
GLBTS Workgroup Activities and Reports	<ul style="list-style-type: none"> - 3/23/98 WG is formed at the first implementation meeting - 11/16/98 WG meeting at the GLBTS Stakeholder Forum in Chicago, IL - 12/31/98 Draft GLBTS Challenge report for alkyl-lead is posted on the GLBTS web page 	<ul style="list-style-type: none"> - 1/99 EC prepares <i>Alkyl Lead Inventory Study - Sources, Uses and Releases in Ontario, Canada: A Preliminary Review</i>, and posts report on the GLBTS web page. The report concludes that the Canadian challenge of reducing alkyl-lead use by 90% between 1988 and 2000 has been exceeded. - 9/8/99 GLBTS and PBT workgroups meet with National Motor Sports Council to discuss voluntary phase-out of leaded gasoline - 10/29/99 draft GLBTS <i>Sources, Regulations and Options</i> (Steps 1, 2 & 3) Report for Alkyl-Lead is posted on the GLBTS web page 	<ul style="list-style-type: none"> - GLBTS <i>Sources, Regulations, and Reduction Options</i> (Step 1, 2 & 3) report for alkyl-lead is finalized (6/00) and posted (9/29/00) on the GLBTS web page - GLBTS U.S. Challenge on Alkyl-lead: <i>Report on the Use of Alkyl-lead in Automotive Gasoline</i> is finalized (6/00) and posted (9/29/00) on the GLBTS web page 	<ul style="list-style-type: none"> - The U.S. has met the challenge of confirming no use of alkyl-lead in automotive gasoline. The USEPA PBT Program has taken the lead for the U.S. in coordinating stakeholder efforts to reduce remaining alkyl-lead releases
Other Related Activities		<ul style="list-style-type: none"> - Work begins on a draft National PBT Action Plan for Alkyl-lead 	<ul style="list-style-type: none"> - 8/25/00 A Draft PBT National Action Plans for alkyl-lead is posted on the PBT web page for public review and comment - Auto racing industry expresses interest in working with USEPA to find lead-free gas substitutes 	<ul style="list-style-type: none"> - USEPA is working with NASCAR to permanently remove alkyl-lead from racing fuels used, specifically, in the Busch, Winston Cup, and Craftsman Truck Series

YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Octachlorostyrene (OCS)				
GLBTS Workgroup Activities and Reports	<ul style="list-style-type: none"> - 3/23/98 WG is formed at the first implementation meeting - 6/16/98 Background Paper and Draft Action Plan for OCS posted on GLBTS web - 11/16/98 WG meeting at the GLBTS Stakeholder Forum in Chicago, IL - 12/31/98 Draft GLBTS Challenge report for OCS is posted on the GLBTS web page 	<ul style="list-style-type: none"> - 4/27/99 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 11/18/99 WG meeting at the GLBTS Stakeholder Forum in Chicago, Illinois - Data on OCS trends in fish is assessed by the WG 	<ul style="list-style-type: none"> - 5/16/00 WG meeting at the GLBTS Stakeholder Forum in Toronto, Ontario - 6/30/2000 EC draft report on Octachlorostyrene Sources, Regulations and Programs for the Province of Ontario 1988, 1998, and 2000 forwarded to interested stakeholders - 9/22/00 Draft GLBTS Stage 3 report for OCS is distributed at the 9/22 Integration Group meeting and e-mailed to the OCS workgroup - 12/00 USEPA and EC convene a meeting of North American magnesium producers to promote sharing of lessons regarding methods for preventing and managing OCS and other chlorinated hydrocarbon wastes 	
Other Related Activities		<ul style="list-style-type: none"> - 3/10/99 CGLI report, <i>OCS and Suggested Industrial Sources: A Report to the GLBTS Workgroup</i>, is submitted to the workgroup 	<ul style="list-style-type: none"> - 8/25/00 A Draft PBT National Action Plan for OCS is posted on the PBT web page for public review and comment 	



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Sediments				
Canadian and U.S. Activities	<ul style="list-style-type: none"> - 6/15/98 PCB workgroup requests that the IG develop a strategy on sediments - 6/19/98 Integration Group discusses sediments challenge - EPA provides guidance to workgroups on how to deal with sediments within chemical-specific workgroups 	<ul style="list-style-type: none"> - 1/26/99 Overview and presentation of IJC SedPAC Activities given at Integration Group meeting - 2/99 Integration Group members develop a draft charge for a sediments subgroup - 4/28/99 Draft Sediments subgroup charge presented at Integration Group meeting 	<ul style="list-style-type: none"> - 2/15/00 USEPA and EC present a draft sediment reporting format at the Integration Group meeting. The proposed format will map progress and report annually on sediment remediation in the Great Lakes Basin using 1997 as the baseline year - 5/16/00 At the Stakeholder Forum, USEPA and EC present the draft sediment reporting format and commit to hold a sediment technology workshop 	<ul style="list-style-type: none"> - 4/24/01 USEPA and EC host a two-day workshop on "Removing and Treating Great Lakes Contaminated Sediment," presenting sediment remediation technologies and case studies
Related Activities	<ul style="list-style-type: none"> - 11/97 The IJC's Sediment Priority Action Committee (SedPAC) issues draft white paper <i>Overcoming Obstacles to Sediment Remediation in the Great Lakes Basin</i> - 12/1-2/98 IJC SedPAC holds "Workshop to Evaluate Data Interpretation Tools Used to Make Sediment Management Decisions" in Windsor, Ontario 			



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Long-Range Transport				
Activities		- 11/19/99 EC presents the status of their LRT effort at the Integration Group meeting	- 3/27/00 EC prepares report: <i>Long-range Transport of Persistent Toxic Substances to the Great Lakes: Review and Assessment of Recent Literature</i> (Ortech Environmental)	- Several studies are being undertaken in the U.S. and Canada to characterize global transport processes.



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
General Activities Related to Reductions in GLBTS Substances				
U.S. EPA Regulatory Determinations	<ul style="list-style-type: none"> - 12/95 MACT rules for large MWC are promulgated - 9/97 MACT rules for MWI are promulgated - 4/15/98 Pulp, Paper, and Paperboard Cluster Rule is promulgated - 6/29/98 Amendments to the PCB Disposal Regulations are finalized - 11/12/98 Federal Plan for MACT Implementation for large MWCs is finalized 	<ul style="list-style-type: none"> - 5/28/99 An Advance Notice of Proposed Rulemaking is released for the RCRA LDR for Mercury-Bearing Hazardous Wastes - 7/6/99 Federal Plan for MACT Implementation for MWI is proposed - 8/30/99 MACT for small MWCs are proposed (expected to be final in 2000) - 9/30/99 Final Standards for Hazardous Air Pollutants for HWC are promulgated - 10/29/99 TRI Amendments: new PBT reporting thresholds 	<ul style="list-style-type: none"> - 12/00 Compliance deadline for large MWC MACT - 9/02 Compliance deadline for MWI MACT - 1/1/00 New TRI reporting thresholds for PBTs become effective 	<ul style="list-style-type: none"> - PCP re-registration review proceeding as joint Canada/U.S. endeavor - USEPA finalizes the Reclassification of PCB and PCB-contaminated Electrical Equipment rule and a rule on Return of PCB Waste from U.S. Territories Outside the Customs Territory of the U.S.
U.S. EPA Activities	<ul style="list-style-type: none"> - 6/97 <i>Deposition of Air Pollutants to the Great Waters: Second Report to Congress</i> is released - 12/97 <i>Mercury Report to Congress</i> is released - 4/98 <i>Final Emission Inventory Data for Section 112(c)(6) Pollutants</i> is released - 11/16/98 EPA's Multimedia PBT Strategy is announced - 11/16/98 Under the PBT strategy, a draft National Action Plan for Mercury is released 	<ul style="list-style-type: none"> - PBT Strategy grant awarded to WLSSD to work on reducing open trash burning - U.S. PCB transformer registration database is updated - Sample collection begins for the National Study of Chemical Residues in Fish - U.S. GLBTS workgroup leaders participate in development of Draft National Action Plans of part of PBT Strategy 	<ul style="list-style-type: none"> - 6/00 <i>Deposition of Air Pollutants to the Great Waters: Third Report to Congress</i> is released - 6/12/00 draft chapters of the <i>U.S. Dioxin Reassessment</i> for external scientific review are released - 9/00 USEPA's 1996 National Toxics Inventory is released - 9/28/00 Three draft chapters of the <i>U.S. Dioxin Reassessment</i> for SAB review are released - PBT workgroups continue to work on National Action Plans for HCB, B(a)P, the Level 1 pesticides, and PCBs - USEPA's Office of Air and Radiation and Office of Water collaborate on an Air-Water Interface Workplan to address atmospheric deposition of toxics and nitrogen to U.S. water bodies. 	<ul style="list-style-type: none"> - 5/23/01 U.S. signs the United Nation's global treaty on Persistent Organic Pollutants (POPs)

YEAR				
1998 and earlier		1999	2000	2001 and ongoing
EC Regulatory Determinations	<ul style="list-style-type: none"> - Canadian Environmental Protection Act is renewed 		<ul style="list-style-type: none"> - CWS (release limits) are developed for mercury, particulate matter, ozone, and benzene, and are being developed for dioxins/furans. - Canadian SOPs are under development for the Iron and Steel Manufacturing sector and finalized for the Wood Preservation sector - 6/19/00 EC solicits public comments on proposed amendments to the PCB regulations under CEPA 	<ul style="list-style-type: none"> - 2/19/01 Canada announces \$120.2 million in new regulatory and other measures to accelerate action on clean air - 7/7/01 A notice with respect to Polychlorinated Biphenyls in Automotive Shredder Residue is published in the Gazette, Part I, for automobile shredding facilities that generated PCB-contaminated residue during 1998, 1999, or 2000. - EC proposes amendments to the Chlorobiphenyl Regulations and Storage of PCB Material Regulations promulgated in
EC Activities	<ul style="list-style-type: none"> - Ontario "Drive Clean" program 	<ul style="list-style-type: none"> - 1/99 The Canadian <i>Dioxins and Furans and Hexachlorobenzene Inventory of Releases</i> is finalized. - EC upgrades and digitizes its National PCB database 	<ul style="list-style-type: none"> - Draft HCB, B(a)P (PAH), and OCS release inventories for Ontario are updated and circulated for review - EMA with Algoma Steel being finalized. - EC, in coordination with the Hearth Products Association, conducts testing of conventional and USEPA-certified wood stoves to investigate releases of dioxins/furans, PAHs, HCB, and particulate matter 	



YEAR				
1998 and earlier		1999	2000	2001 and ongoing
Other Activities	<ul style="list-style-type: none"> - CEC issues Continental Pollutant Pathways Initiative - 7/98 UNEP POPs Negotiations initiated - Under the GLWQA, The Lake Ontario Lamp Stage 1 report is released 	<ul style="list-style-type: none"> - By the end of 1999, emission control retrofits either completed or underway at all large MWC in the U.S. - The initial Great Lakes Regional Air Toxics Emissions Inventory, using 1993 data, is released - The Lake Ontario Lamp Update 1999 is released 	<ul style="list-style-type: none"> - Under the GLWQA, Canada and the U.S. work on restoring beneficial uses to 43 AOCs in the Great Lakes Basin through the RAP program - The Lake Erie, Lake Michigan, and Lakes Superior LaMPs 2000 are released - The Lake Ontario Lamp Update 2000 is released - The Lake Huron Initiative Action Plan is released - Numerous pilot projects and pollution prevention/reduction agreements relevant to toxics of concern are underway with the steel, automobile, and other manufacturing industries and utilities in Ontario and the U.S. Great Lakes states - 11/8-9/00 Atmospheric deposition workshop held, <i>Using Models to Develop Air Toxics Reduction Strategies</i> - 12/00 Final POPs negotiations - The 1996 Great Lakes Inventory of Toxic Air Emissions is prepared by the Great Lakes Commission 	<ul style="list-style-type: none"> - 2/01 21st session of the UNEP Governing Council is held: UNEP will undertake a global study on the health and environmental impacts of mercury - 8/22/01 The IJC issues a Review of Progress under the Canada-United States Great Lakes Binational Toxics Strategy - Monitoring of air deposition of toxic pollutants in the Great Lakes basin continues under IADN

Abbreviations

AHA	American Hospital Association	MOU:	Memorandum of Understanding
AOC:	Area of Concern	MWC:	Municipal Waste Combustors
B(a)P:	Benzo(a)pyrene	MWI:	Medical Waste Incinerators
CEPA:	Canadian Environmental Protection Act	NORA:	National Oil Recycler's Association
CGLI:	Council of Great Lakes Industries	NPDES:	National Pollutant Discharge Elimination System
CWS:	Canada Wide Standards	OCS:	Octachlorostyrene
DNR:	Department of Natural Resources	OME:	Ontario Ministry of the Environment
EC:	Environment Canada	P2:	Pollution Prevention
EPA:	(U.S.) Environmental Protection Agency	PAH:	Polycyclic Aromatic Hydrocarbon
GLBTS:	Great Lakes Binational Toxics Strategy	PCBs:	Polychlorinated Biphenyls
GLWQA:	Great Lakes Water Quality Agreement	POPs:	Persistent Organic Pollutants
HCB:	Hexachlorobenzene	RAPs:	Remedial Action Plans
Hg:	Mercury	RCRA:	Resource Conservation and Recovery Act
HWC:	Hazardous Waste Combustors	SAB:	Science Advisory Board
IADN:	Integrated Atmospheric Deposition Network	SOP:	Strategic Options Process
IDEM:	Indiana Department of Environmental Management	UNEP:	United Nations Environment Programme
IJC:	International Joint Commission	WDNR:	Wisconsin Department of Natural Resources
LaMPs:	Lakewide Management Plans	WG:	Workgroup
LDR:	Land Disposal Restrictions	WLSSD:	Western Lake Superior Sanitary District